Fourth Report Calendar Year 1959 Also Cumulative Report for 1956 through 1959

**INFANT** 

and

NEONATAL MORTALITY

and

STILLBIRTH RATES

by

Prepared by

Montana State Board of Health
Division of Child Health Services
Division of Records and Statistics
-and-

Montana Medical Association
Maternal & Child Welfare Committee

MONTANA HOSPITALS

Helena, Montana

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#### FOREWORD

TO: Hospital Administrators
Medical Staffs. and Nurses

This is the fourth annual infant and fetal mortality report prepared for disseminating vital information to the medical and nursing professions and to hospital administrators. Its purpose is aimed to improve the caliber of maternal and newborn care in Montana hospitals.

As in previous years all hospitals in Montana doing obstetrics cooperated with the State Board of Health and the Maternal and Child Welfare Committee of the Montana Medical Association by returning, quarterly, information on the number of live births, stillbirths, neonatal, and infant deaths occurring in their respective hospitals. This information has been tabulated for each of four groups representing a classification by number of hospital beds.

In 1959 there were 17,448 live births in Montana (by place of occurrence) for a rate of 26.1 per 1,000 estimated population. There were 332 infant deaths with a rate of 19.2 per 1,000 live births. Of these, there were 281 neonatal deaths with a rate of 16.2. There were also 214 fetal deaths with a rate of 12.3 per 1,000 live births. The perinatal death rate was 28.6 per 1,000 live births.

Because of the interest shown in previous reports of this type it has been decided to continue this study. It is hoped that hospitals and medical staffs will continue to cooperate by reporting mortality and by continuing to support the perinatal death studies. This year hospitals are ranked on the basis of their neonatal death rates instead of infant deaths as in previous reports. It was felt that by so doing a more accurate picture of the obstetric and newborn care rendered would be obtained. The hospital ranked number 1 in each group has the lowest neonatal death rate in that bed class. Your hospital is checked in red in the report. It is further hoped that the administrators, medical staffs, and nurses will review the report and consider where improvements can be made in their own hospital.

In many hospitals the number of deliveries and infant deaths are so small that a one-year study can often be misleading. It was, therefore, thought that a cumulative report would show more accurate data. Four year and yearly comparative tables for the years 1956 through 1959 are included.

Consultation in connection with construction in hospitals, with problems in the care of the premature and newborn, and with the control of communicable diseases is available on request through the State Board of Health.

Montana State Board of Health
Maternal and Child Welfare Committee
of the Montana Medical Association

# 1 A - GENERAL HOSPITALS (100 beds or more)

Montana - 1959

### Infant and Fetal Mortalities

N∈	eonatal Rank	Total Andrews		Number	of Deaths			Rate pe	r 1,000	Live Birth	ıs
	in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth	The state of the s	Infant	1-11 Months	Neonatal	Stillbirt
LATOT		7,546	165	27	138	90	MEAN	23. 0	2 (	- 0	
	1 2 3 4 5 6 7 8 9 10	381 931 463 479 917 386 1,292 719 931 1,047	6 14 7 7 21 7 28 16 26 33	3510603144	3 9 6 7 15 7 25 15 22 29	2 17 7 8 9 10 13 8 5	1.9T rc. <sup>3</sup> TA	21.9 15.5 15.0 15.1 14.6 22.9 18.1 21.7 22.3 27.9 31.5	3.6 7.9 5.4 2.2 0.5 0.0 2.3 1.4 4.3 3.8	7.9 9.6 12.9 14.6 16.4 18.1 19.4 20.8 23.6 27.7	5.2 18.3 15.1 16.7 9.8 25.9 10.1 11.1 5.4 10.5

Montana - 1956 through 1959

		Number	of Deaths			Rate per	r 1,000 L:	ive Births	
Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirt
31,386	633	89	544	384	MEAN	20.0	2.8	17.2	12.6
7,933	172	29	143	103		21.7	3.7	18.0	13.0
8,195	161	22	139	89		19.6	2.6	17.0	10.9
7,712	<u>-</u> 35	11	124	102	digen-	17.5	1.4	16.4	13.2
7,546	165	27	138	90	NP page delicitions and section of the section of t	21.9	3.6	18.3	11.9
	1,386 7,933 8,195 7,712	Live Births     Infant       31,386     633       7,933     172       8,195     161       7,712     135	Number of Live Births       Infant       1-11 Months         31,386       633       89         7,933       172       29         8,195       161       22         7,712       135       11	Live Births     Infant     Months     Neonatal       31,386     633     89     544       7,933     172     29     143       8,195     161     22     139       7,712     135     11     124	Number of Live Births       Infant       1-11 Months       Neonatal       Stillbirth         31,386       633       89       544       384         7,933       172       29       143       103         8,195       161       22       139       89         7,712       235       11       124       102	Number of Live Births       Infant       1-11 Months       Neonatal       Stillbirth         31,386       633       89       544       384         7,933       172       29       143       103         8,195       161       22       139       89         7,712       135       11       124       102	Number of Live Births       Infant       1-11 Months       Neonatal       Stillbirth       Infant         31,386       633       89       544       384       MEAN       20.0         7,933       172       29       143       103       21.7         8,195       161       22       139       89       19.6         7,712       235       11       124       102       17.5	Number of Live Births       Infant       1-11 Months       Neonatal       Stillbirth       Infant       1-11 Months         31,386       633       89       544       384       MEAN       20.0       2.8         7,933       172       29       143       103       21.7       3.7         8,195       161       22       139       89       19.6       2.6         7,712       235       11       124       102       17.5       1.4	Number of Live Births Infant Infant Neonatal Stillbirth Infant Infant Neonatal Stillbirth Infant Neonatal Infa

# 1 C - GENERAL HOSPITALS (100 beds or more)

Montana - 4 Year Period-1956-1959

Neonatal Rank			Number	of Deaths			Rate per	r 1,000 L:	ive Births	
in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth	Computer state of the	Infant	l-11 Months	Neonatal	Stillbirth
TOTAL	31,386	633	89	544	384	MEAN	20.0	2.8	17.2	12.2
1 2 3 4 5 6 7 8 9 10	3,560 1,512 2,068 5,485 3,830 3,421 2,318 1,553 4,242 3,397	54 25 36 98 78 79 49 30 103 81	12 6 2 7 15 20 8 0 13 6	42 19 34 91 63 59 41 30 90 75	46 12 30 62 33 37 44 30 53 37		15.2 16.5 17.4 17.9 20.4 23.1 21.1 19.3 24.3 23.8	3.4 3.9 0.9 1.3 3.9 5.8 3.4 0.0 3.1 1.8	11.8 12.6 16.4 16.6 16.7 17.2 17.7 19.3 21.2 22.1	12.9 7.9 14.5 11.3 8.6 10.8 19.0 19.3 12.4 10.9

## # 2 A - INTERMEDIATE GENERAL HOSPITALS (40-99 beds)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank			Number (	of Deaths		to a continuous patternage	Rate pe	r 1,000 I	Live Births	
in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth	The state of the s	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	6,089	104	10	94	71	MEA N	17.1	1.6	15.4	11.7
3 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	70 55 213 205 306 378 369 279 234 644 72 607 378 557 363 360 414 168 417	0 0 1 1 2 3 3 4 6 9 1 9 6 9 8 8 1 5 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	000000121000021300	0 0 1 1 2 3 3 3 4 8 1 9 6 9 6 7 1 5 1 5 1 5 1 5 1	0020544220055018616		0.0 0.0 1.7 1.9 1.3 1.4 1.3 1.4 1.3 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.7 4.9 6.5 7.9 8.1 10.7 11.9 14.8 15.9 16.2 16.5 19.4 26.7 29.6 35.9	0.0 0.0 9.4 0.0 16.4 10.6 10.8 7.2 8.5 0.0 8.2 13.2 17.9 2.8 22.2 14.4

# 2 B - INTERMEDIATE GENERAL HOSPITALS (40-99 beds)

Montana - 1956 through 1959

			Number	of Deaths				r 1,000 L:	ive Births	
	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirth
TOTALS	22,666	420	56	364	289	MEAN	18.5	2.5	16.1	12.8
1956	5,531	103	23	80	81		18.6	4.2	14.5	14.6
1957	5,603	104	15	89	71		18.6	2.7	15.9	12.7
1958	5,443	109	8	101	65		20.0	1.5	18.6	11.9
1959	6,089	104	10	94	71		17.1	1.6	15.4	11.7

## # 2 C - INTERMED IATE GENERAL HOSPITALS (40-99 beds)

Montana - 4 Year Period-1956-1959

Neonatal Rank			Number	of Deaths		A CANADA	Rate pe	r 1,000 L	ive Births	
in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	22,666	420	56	364	289	MEAN	18.5	2,5	16.1	12.8
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	807 860 945 2,546 363 287 1,651 1,431 1,204 2,504 1,553 169 635 1,416 1,302 963 1,424 1,104 1,502	46 15 36 75 25 19 44 28 35 32 22 33 46	1067212403203632310	3 6 9 29 5 4 23 21 19 41 26 30 21 36	1 9 13 24 2 2 24 19 13 35 2 12 12 20 13 17 15 21		5.0 7.0 15.9 14.2 19.3 17.4 15.7 17.5 15.8 17.6 18.0 17.7 23.3 22.8 23.2 23.6 30.6	1.2 0.4 7.5 1.8 0.2 1.0 1.2 0.7 2.3 1.9 6.7	3.7 7.0 9.5 11.4 13.8 13.9 14.5 14.7 15.8 16.4 16.7 17.7 18.9 19.1 20.0 20.8 21.1 21.7 23.9	1.2 10.5 13.8 9.4 5.5 6.9 15.0 13.3 10.8 13.9 22.5 11.9 18.9 8.5 15.4 13.5 11.9 13.6 14.0

## # 3 A - SMALL GENERAL HOSPITALS (10-39 beds)

Montana - 1959

Infant and Fetal Mortalities

Neon R	atal Rank			Number (	of Deaths			Rate pe	r 1,000 I	ive Births	
i	in }roup	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirt
TOTAL		3,603	62	14	48	50	MEAN	17.0	4.0	13.4	14.0
	1 1 1 1 1 1 1 1 1 2 3	218 152 125 99 89 69 77 57 48 48 41 39 16 2 0 106 195	200000000000015	2000000000000003	000000000000000000000000000000000000000	7 0 1 1 3 2 1 0 0 0 0 0 0		9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	32.1 0.0 8.0 10.1 11.2 33.7 26.0 17.5 0.0 20.9 0.0 0.0 0.0

# # 3 A - SMALL GENERAL HOSPITALS (10-39 beds) (Continued)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank			Number	of Deaths		of the state of th	Rate pe	r 1,000 I	Live Births	
in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth	disconvenience erane crip	Infant	1-11 Months	Neonatal	Stillbirt
4 56 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	174 74 142 69 68 135 265 65 65 255 156 46 122 39 112 142 120 84	2131113411432513594	0010001000150	212112411431513444	1121104502451001031		11.5 13.5 21.1 14.5 21.2 15.4 15.4 15.4 15.4 15.6 25.6 26.8 275.0 47.6	0.0 0.0 7.0 0.0 0.0 7.4 0.0 0.0 0.0 0.0 21.7 0.0 0.0 0.0	11.5 13.5 14.1 14.5 14.5 14.7 14.8 15.4 15.4 15.4 15.7 19.0 21.7 24.6 25.6 26.8 28.2 33.3 47.6	5.8 13.5 14.1 14.5 0.0 29.6 18.8 0.0 30.8 15.7 32.1 21.7 0.0 0.0 8.9 0.0 25.0 11.9

# 3 B - SMALL GENERAL HOSPITALS (10-39 beds)

Montana - 1956 through 1959

#### Infant and Fetal Mortalities

					Rate pe	r 1,000 L:	ive Births			
	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirth
TOTALS	14,493	310	83	227	205	MEAN	21.4	5.7	15.6	14.2
1956	3,596	86	19	67	41	And a state of the	23.9	5.3	18.6	14.4
1957	3,826	86	33	53	56		22.5	8.6	13.9	14.6
1958	3,468	76	17	59	58		21.9	4.9	17.0	17.0
1959	3,603	62	14	48	50		17.0	4.0	13.4	14.0
						ì				

## # 3 C - SMALL GENERAL HOSPITALS (10-39 beds)

#### Montana - 4 Year Period-1956-1959

#### Infant and Fetal Mortalities

Neonatal Rank			Number	of Deaths			Rate pe	r 1,000 I	ive Births	
in Group	Number of Live Births	Infant	l-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	13,640	270	59	211	185	MEAN	19.8	4.3	15.5	13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	78 300 286 240 179 339 466 186 90 598 654 478 388 580 713 419	3 1 1 1 4 5 2 1 7 8 7 6 9 19 6	3 0 0 0 0 0 0 0 0 1 1 9 0	0 1 1 1 2 4 2 1 7 8 6 5 8 10 6	1723255213239435		38.5 3.3 3.5 4.1 5.6 11.8 10.7 10.8 11.1 11.7 12.2 14.6 15.5 15.4 26.6 14.3	38:5 0.0 0.0 0.0 0.0 5.9 2.1 0.0 0.0 0.0 2.9 2.6 1.7 12.6 0.0	0.0 3.3 3.5 4.1 5.6 5.9 8.6 10.8 11.1 11.7 12.2 12.6 12.9 13.8 14.0 14.3	12.8 23.3 7.0 12.5 11.2 14.7 10.7 10.8 11.1 5.0 3.1 6.3 23.2 24.1 18.2 11.9

# 3 C - SMALL GENERAL HOSPITALS
(10-39 beds)
(Continued)

Montana - 4 Year Period-1956-1959

Infant and Fetal Mortalities

Neonatal Rank			Number	of Deaths		Rate pe	r 1,000 Li	ive Births	
in Group	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirt
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	339 200 529 329 963 119 512 274 800 871 338 315 986 196 535 340	558618316634775459	0 2 0 1 3 1 12 1 16 0 0 3 0	5 3 8 5 5 2 9 5 5 18 7 7 22 4 14 9	2 1 7 4 13 0 12 5 14 18 4 13 1 5 5	14.7 25.0 15.1 18.1 18.6 25.1 41.0 21.9 20.0 39.0 20.7 22.2 25.3 25.5 28.0 26.5	0.0 10.0 0.0 3.0 3.1 8.4 23.4 3.6 1.3 18.4 0.0 0.0 3.0 0.0	14.7 15.0 15.1 15.2 15.5 17.0 17.6 18.2 18.8 20.7 20.7 22.2 22.3 25.5 26.1 26.5	5.9 5.0 13.2 12.1 13.5 0.0 23.4 18.2 17.5 20.7 11.8 12.7 13.2 5.1 9.3 14.7

Note: These figures vary somewhat from the other four-year report because some hospitals were not operating all four years, and thus were not included in this table.

## # 4 A - COMMUNITY HEALTH FACILITY (under 10 beds)

Montana ~ 1959

Infant and Fetal Mortalities

Neona	t <b>al</b> ınk			Number	of Deaths			Rate pe	r 1,000 L	ive Births	
in		Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	l-11 Months	Neonatal	Stillbirth
TOTAL		89	1	0	1	3	MEAN	11.2	0.0	11.2	33.7
	1 1 2	36 19 34	0 0 1	0 0 0	0 0 1	0 0 3		0.0 0.0 29.4	0.0 0.0 0.0	0.0 0.0 29.4	0.0 0.0 88.2

# 4 B - COMMUNITY HEALTH FACILITY (under 10 beds)

Montana - 1956 through 1959
Infant and Fetal Mortalities

		Number of Deaths				Rate per 1,000 Live Births				
	Number of Live Births	Infant	1-11 Months	Neonatal	Stillbirth		Infant	1-11 Months	Neonatal	Stillbirth
TOTALS	346	5	1	7†	7	MEAN	14.4	2.9	11.6	20.2
1956	94	2	1	1	1		21.3	10.6	10.6	10.6
1957	64	2	0	2	2		31.3	0.0	31.3	31.3
1958	99 -	0	0	0	1		0.0	0.0	0.0	11.1
1959	89	1	0	1	3		11.2	0.0	11.2	33.7

3		

					.0		